

REMARKS/ARGUMENTS

After entry of this amendment, claims 33 and 47-54 are pending. Claims 1, 32, 35-37, 39, 44, and 45 are canceled, without prejudice. Applicants reserve the right to prosecute these claims in a divisional or continuation application filed during the pendency of the present application.

In an effort to place the application in condition for allowance, claim 33 is amended to recite a nucleic acid sequence comprising the sequence of SEQ ID NO: 13, the sequence wherein T is U, and a sequence 100% complementary thereto. Support for the amendments to claim 33 is found in the original specification and claims.

New claims 47-54 are added and contain previously elected subject matter. New claim 47 substantially corresponds to subsection (iv) in original claim 33. New claims 48, 49, 51, and 52 substantially correspond to canceled claim 35, 36, 44, and 37, respectively. New claims 50 and 53 substantially correspond to canceled claim 39. Support for new claim 54 is found in Figure 7. No new matter is added by these new claims.

Claim Objection

The Examiner has objected to claim 44 for containing non-elected subject matter. In an effort to place the application in condition for allowance, Applicants have canceled claim 44. Applicants respectfully assert that amended claim 33 and new claims 47-54 are directed to previously elected subject matter.

Reconsideration of this objection is requested.

35 USC § 112, First Paragraph Rejection

The Examiner has rejected claims 1, 32, 33, 35-37, 39, and 44 under 35 USC § 112, first paragraph and has asserted that the specification fails to disclose nucleic acids other than SEQ ID NO:13.

In an effort to place the application in condition for allowance, Applicants have canceled claims 1, 32, 35-37, 39, and 44, thereby mooting the outstanding rejection as applied to these claims.

As amended, claim 33 is drawn to a nucleic acid molecule comprising the sequence of SEQ ID NO: 13, the sequence wherein T is U, and a sequence 100% complementary thereto. As admitted by the Examiner¹, the specification properly discloses a KLK-L2 protein having the genomic nucleic acid sequence of SEQ ID NO: 13. One of ordinary skill in the art would readily be able to use the teachings of the specification and techniques known to those of skill in the art to obtain a sequence where T is U or that is 100% complementary to the nucleic acid sequence of SEQ ID NO: 13. No additional information is required for the specification to teach these sequences.

Further, new claim 47 is drawn to a nucleic acid molecule recited in claim 33 where the nucleic acid sequences differ in codon sequences due to the degeneracy of the genetic code. One of skill in the art would readily be able to use the teachings of the specification and conventional techniques to obtain sequences with these nucleic acid substitutions. The specification clearly teaches at Figure 7, for example, where SEQ ID NO: 13 encodes a protein sequence. One of skill in the art with very little effort could take the well-known tables showing degenerate codons encoding the same amino acids and replace any one or more of the nucleic acids in SEQ ID NO: 13 with another nucleic acid that allows the same amino acid to be encoded. Obtaining such a degenerate sequence that encodes the same protein is thus clearly within the teaching of the specification and involves only knowledge within the reach of one of skill in the art. No additional information is required for the specification to teach such sequences.

Therefore, the specification is in compliance with 35 USC §112, first paragraph. Reconsideration of the rejection is respectfully requested.

35 USC § 112, Second Paragraph Rejection

The Examiner rejected claims 32, 35, 36, 39, and 44 under 35 USC § 112, second paragraph.

- (i) The Examiner has asserted that the term "substantial" renders claims 32, 35, 36, and 39 indefinite.

¹ Page 3, lines 17-18 and page 4, lines 8-9 of the Office Action dated August 13, 2003.

In an effort to place the application in condition for allowance, Applicants have canceled claims 32, 35, 36, and 39 thereby mooting the outstanding rejection. Applicants respectfully assert that the rejected term "substantial" is not present in pending claim 33 or newly added claims 47-54.

- (ii) The Examiner has asserted that there is insufficient antecedent basis for the phrase "a substance or compound identified by the method of claim 37" in claim 44.

In an effort to place the application in condition for allowance, Applicants have canceled claim 44, thereby mooting the outstanding rejection.

Applicants assert that the new dependent claims have sufficient antecedent basis in the base claims from which they depend.

35 USC § 102 Rejections

- (i) Claims 1, 33, and 44 are rejected under 35 USC § 102(b) over Hillier et al. (Accession No. N80762 - Hillier I)

The Examiner has asserted that Hillier I discloses the sequence of the claimed invention.

In an effort to place the application in condition for allowance, Applicants have canceled claims 1 and 44, thereby mooting the outstanding rejection as applied to these claims.

Hillier I does not teach or suggest the presently claimed invention. Hillier I teaches a small 453 bp nucleic acid sequence. Hillier I does not teach a nucleic acid sequence of SEQ ID NO: 13, the sequence wherein T can be U; or a nucleic acid sequence 100% complementary thereto recited in new claim 33, or the degenerate sequences recited in new claim 47. Further, Hillier I does not teach the vectors, host cells, probes, compositions, methods or specific nucleic acids of new claims 48-54.

- (ii) Claims 32 and 39 are rejected under 35 USC § 102(b) over Hillier et al. (Accession No. W73168 - Hillier II).

The Examiner has asserted that Hillier II discloses a nucleic acid encoding a protein that shares substantial sequence identity with SEQ ID NO: 14.

In an effort to place the application in condition for allowance, Applicants have canceled claims 32 and 39, thereby mooted the outstanding rejection.

Hillier II does not teach or suggest the presently claimed invention. Hillier II teaches a small 498 bp nucleic acid sequence. Hillier II does not teach a nucleic acid sequence of SEQ ID NO: 13, the sequence wherein T can be U, or a nucleic acid sequence 100% complementary thereto recited in claim 33, or the degenerate sequences thereof recited in claim 47. Further, Hillier II does not teach vectors, host cells, probes, compositions, methods or specific nucleic acids of claims 48-54.

35 USC § 103(a) Rejection

The Examiner has rejected claims 35-37 under 35 USC § 103(a) over Hillier et al.

The Examiner has asserted that it would have been obvious to one of ordinary skill in the art to make a vector comprising the isolated nucleic acid as claimed and introduce the vector into a host cell to express the protein encoded by the nucleic acid.

In an effort to place the application in condition for allowance, Applicants have canceled claims 35-37, thereby mooted the outstanding rejection.

The small nucleic acid sequences of Hillier I and II discussed above, do not, alone or in combination, teach or suggest a nucleic acid sequence of SEQ ID NO: 13, a nucleic acid sequence of SEQ ID NO: 13 where T is replaced by U, or nucleic acids 100% complementary thereto recited in claim 33, or the degenerate sequences recited in claim 47. Nor do the small nucleic acid sequences of Hillier I and II, alone or in combination, teach or suggest the vectors, host cells, probes, compositions, methods or specific nucleic acids of claims 48-54.

In summary, it is submitted that pending claims 33 and 47 to 54 are in condition for allowance.

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The Director is hereby authorized to charge any deficiency in any fees due with the filing of this paper or credit any overpayment in any fees to our Deposit Account Number 08-3040.

Respectfully submitted,

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